

Amendments to the Claims:

The listing of claims below will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-32. (canceled)

33. (new) A method for producing a conjugate comprising:

(a) forming a linear carrier on a solid phase by linking amino acids; and

(b) introducing into the carrier 1-10 additional amino acids covalently bound to hapten molecules and 1-10 additional amino acids covalently bound to luminescent metal chelates or biotin, such that defined and reproducible distances between the hapten molecules, the luminescent metal chelates, and the biotin are thereby achieved;

wherein the conjugate comprises a minimum of 5 and a maximum of 100 amino acids; and

wherein the hapten molecules, the luminescent metal chelates, and the biotin are bound to the carrier through a side group selected from the group consisting of amino groups, thiol groups, and a combination thereof.

34. (new) A method for producing a conjugate comprising:

(a) forming a linear carrier on a solid phase by linking amino acids;

(b) introducing into the carrier additional amino acids comprising protected reactive side groups;

(c) deprotecting the reactive side groups; and

(d) coupling 1-10 hapten molecules and 1-10 luminescent metal chelates or biotin groups to the reactive side groups;

wherein the conjugate comprises a minimum of 5 and a maximum of 100 amino acids; and

wherein the hapten molecules, the luminescent metal chelates, and the biotin are bound to the carrier through a side group selected from the group consisting of amino groups, thiol groups, and a combination thereof.

35. (new) The method of claim 33 or 34, wherein the amino groups are primary.
36. (new) The method of claim 34, wherein the reactive side groups are protected with selectively cleavable protecting groups.
37. (new) The method of claim 36, wherein the protecting groups are selected from the group consisting of acid-labile groups and acid-stable groups.
38. (new) The method of claim 33 or 34 wherein the hapten molecules are selected from the group consisting of antibiotics, opiates, amphetamines, barbiturates, cytostatic agents, paracetamol, salicylates, phenytoin, quinine, quinine derivatives, theophyllin, hormones, metabolites, bile acids, sexual hormones, corticoids, cardenolides, cardenolide-glycosides, steroid-sapogenines, steroid alkaloids, peptide hormones, creatinine, thyroid hormones, neurotransmitters, vitamins, mediators, and combinations thereof.
39. (new) The method of claim 38, wherein the cytostatic agents are selected from the group consisting of gentamicin, tobramycin, vancomycin, and combinations thereof; wherein the hormones are sterols; wherein the sexual hormones are selected from the group consisting of estradiol, estriol, testosterone, progesterone, pregnenolone, estradiol derivatives, estriol derivatives, testosterone derivatives, progesterone derivatives, pregnenolone derivatives, and combinations thereof; wherein the corticoids are selected from the group consisting of cortisol, corticosterone, cortisone, cortisol derivatives, corticosterone derivatives, cortisone derivatives, and combinations thereof; wherein the cardenolide-glycosides are selected from the group consisting of digoxin, digoxigenin, strophanthin, bufadienolides, and combinations thereof; wherein the thyroid hormones are selected from the group consisting of T₃, T₄, and a combination thereof; wherein the neurotransmitters are selected from the group consisting of serotonin, choline, γ -aminobutyric acid, and combinations thereof; and wherein the mediators are selected from the group consisting of prostaglandins, leucotrienes, leucoendines, thromboxanes, and combinations thereof.